

# Ski Tracks Android V1.0

## User Guide



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## Forward

If you have already purchased Ski Tracks V1.0 for your Android device, Core Coders would like to thank you for your support and we hope that you enjoy your application.

We would like to thank all those involved in the testing of this application. In particular we would like to thank our Beta Testers who gave up their time on the mountain to check out all the features:

Peter Lymer  
Melissa Collins  
Rowland Spencer-Smith  
Lorraine Wilson  
Alison Pinder  
Rossie Apps  
Andrew Alcock  
Nick Brookfield  
Tory Potgieter  
Michael Owen  
... and many others.

We would like to thank all the engineers who gave us their time and advice in developing this application.

Steve Wilson & Stuart Stirling (Lead Engineers)

## Getting In Touch

If you have any suggestions, require support or just want to chat please use our dedicated Android Ski Tracks email [skitracks-android@corecoders.com](mailto:skitracks-android@corecoders.com) and we will endeavor to get back to you quickly.

## Leaving Feedback

We want you to leave feedback for our product - it helps other potential customers make the right decision when choosing a product. We do ask however that if you are going to leave negative feedback then please get in touch with your concerns or problems and if we don't help then feel free to rant. We have a very high success rate in getting people up and running again so give us a chance first.

## Upgrades

We are constantly improving Ski Tracks to allow new features, however we do not alter your original track data but we will re-process the metrics and other displays with improvements in accuracy from time to time and when this happens please do not stop the application.

# Introduction

This section has some information relating to the application design and technology.

## Locations

Ski Tracks uses a technology built into the majority of Android Devices called assisted GPS (aGPS). aGPS uses a number of different ways to get your current location:

1. Phone mast triangulation.
2. WiFi Hotspot location database.
3. GPS using 3 or more satellites to calculate position.

By using these 3 different methods aGPS can get a fix on your location very quickly compared to a standard GPS - usually in around 2-10 seconds. Once a location has been retrieved getting following locations can be done in under a second<sup>1</sup>.

On a mountain however there are a number of limitations for example mast triangulation may be difficult, WIFI is generally not available and if you are in a valley floor there is less sky available to get satellites signals and so on.

Ski Tracks is also designed to be used with Data Roaming Off this can effect the aGPS system - but means that you don't get home from your trip with a nasty data bill.

**IF YOU ARE USING SKI TRACKS IN ANOTHER COUNTRY, ALWAYS MAKE SURE DATA ROAMING IS OFF UNLESS YOU HAVE A SPECIFIC DATA ALLOWANCE FOR THAT COUNTRY.**

The amount of time it takes to get a first location fix varies between different devices. We have seen whilst testing on the mountain the following fix times with the following phones:

- Samsung Galaxy S3 - ~10 seconds.
- Samsung Galaxy Ace - ~10 seconds.
- Sony Ericsson Xperia U - Anything from 10 seconds to 5 minutes.
- Samsung Galaxy S2 - ~10seconds.

Ski Tracks is designed to work as a background task and is fully operational at all times. However we have worked hard to reduce the battery load of the application, so although it is running all day you should expect anything up to 12 hours for the Samsung Galaxy S3, 12 Hours for the Sony Xperia U and 18-20 hours of recording on the Samsung Galaxy Ace. Again these figures vary between device.

We have employed a series of efficiency savings.

1. Reduced the processing when the application is recording a track.
2. Advanced battery monitoring.

## **Designed by Skiers and Snowboarders**

Before Ski Tracks was developed, we spent a lot of time in the mountains trying to see how users access their phones and what they wanted. Ski Tracks is the result of this analysis.

However, before we developed this application we asked many Skiers and Snowboarders what they really wanted from an application and this is what we were told.

1. Easy to Read Live Ski Statistics - Particularly speed and distance.
2. Long Battery Life - and please no dead phone at the end of the day.
3. Photographs - to be added to the track.
4. Export photographs and track to Google Earth™ (*Coming soon*)

With the success of the application on the iOS platform and the sheer number of request for an Android version, we decided that it would be a step in the right direction to bring it over to Android.

## **Easy To Read Live Ski Statistics**

One of our main aims was to provide a simple to read set of Ski Statistics that would show the current ski day unfold.

Also you'll notice the Profile Graph included in the display. This gives you a graphical representation of your elevation over your distance.

## **Long Battery Life**

After many attempts on the iPhone at enabling track recording for long durations, the current solution on we have on Android gives you the best chance to track your entire day without your phone running out of juice. Many variables can affect your specific battery life but our tracking solution has been optimised to last you all day.

## **Take Photographs on Route**

You may take photos at anytime. When you take a photograph it is automatically added to the main photo's view.

Photo's can be added to your devices Photo Gallery, emailed or deleted.

## User Interface

The user  
designed to

Tracking running notification.

interface has been specifically  
make it easy to see the most  
important information required by



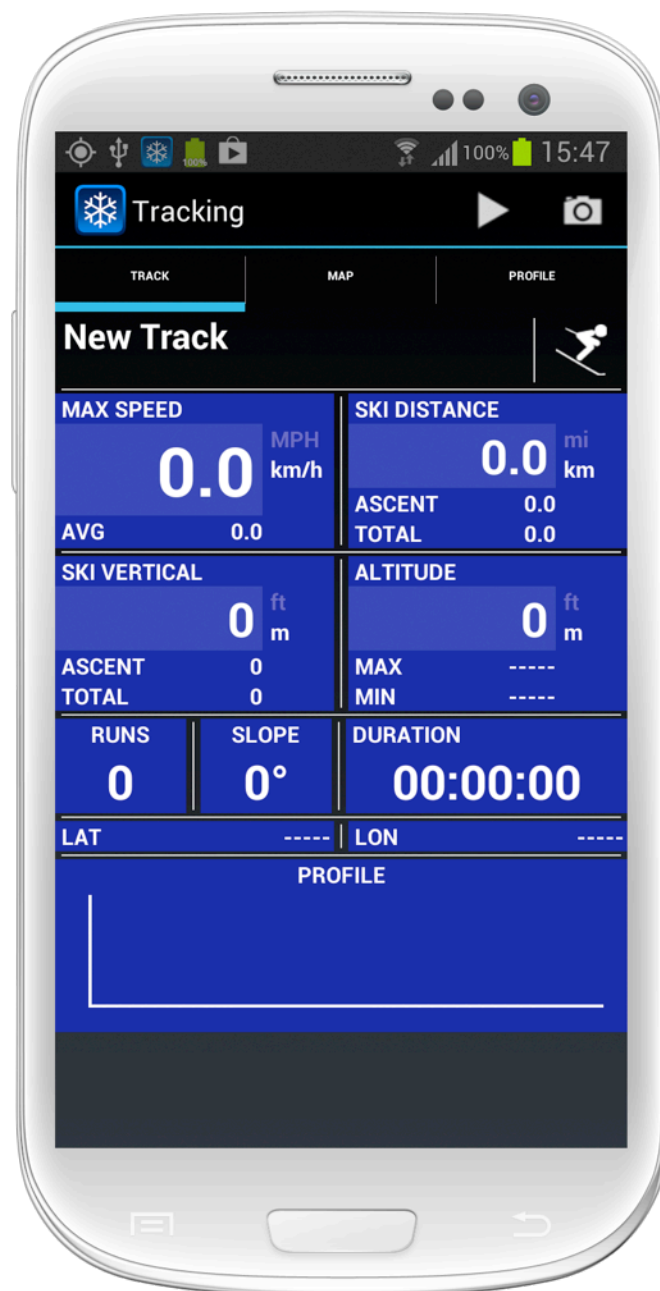
## Quick Start Guide

This section describes the main functions you will use on the application.

### Recording

The main purpose of this application is to record your location on the mountain and to calculate useful and accurate statistics based on these locations.

When you start the application up for the first time, you will be presented with the Tracking display as shown below:







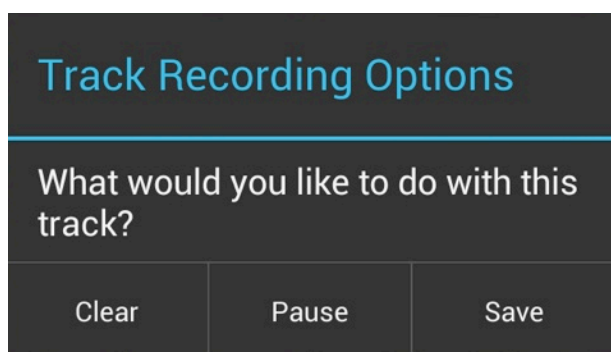
All the Ski Statistics should be empty, the location tracking is already active and should be trying to get a location fix. Pressing the Start button will start the recording. No data will be recorded until the application receives a good quality location.



A number of things will happen once in record mode. The duration counter will start increasing every seconds and the GPS will remain active even if you lock the phone or navigate away from the application.

You may take pictures at any time using the photograph button. If you have a location and you're recording they will be added to that track with a location. If you haven't got a location they will still be added to the track but will not be shown on the map. If you aren't recording they will be added to the track thats ready to be begun.

## Storing



Once you have completed the day you must save your track to the Ski Tracks history. To do this, simply press the pause button and you will be presented with some options.

Once you have saved your track it can NOT be added to so make sure you have definitely finished your day.

When you save your track it is added to the History section of the application.

## Sharing

So you have done your day on the mountain and saved your track and now you want to see where you have really been. When sharing files you can email them or use the "Export to SD Card" option to export them into an external storage directory (Ski Tracks > Tracks > "track format" > "track name").



**GPX**

This file format is used by a large number of GPS receivers and software that can view your tracks.

**SKIZ**

This is the Ski Tracks native file format and is designed for sharing and importing to friends who are running Ski Tracks.

**Photographs**

The pictures taken on each Android device may vary due to the quality of the camera hardware it contains. The majority of devices however provide relatively good picture quality.

**Settings**

The settings display allows the customisation of the application. There are two types of Settings that you have control over.

**Defaults****Activity**

Use this option to set which Activity you want to use as a default for a new track. (You can change this at any time by editing the track).

The options are:

- Skiing.
- Snowboarding.
- Cross Country Skiing.
- Snowmobile.

**Units**

Both Metric and Imperial Units are available. After selection, all displays will convert their values.

**Battery Monitoring & Level**

The battery monitor will constantly monitor your battery level and if it falls below the preset level then track recording will cease and your currently recording track will be paused.

**Sharing****Default Email**

This is the default email that you wish to send your tracks to. This can be overridden at any time by changing the "To" field in the email composition.

## **Copy Us**

We love to hear what our users are up to on the mountain - we have already received thousands of tracks and photographs. So if you want us to be automatically copied on your email then that would be great. We may use your tracks or photographs in our marketing and testing. We will never give your email to anyone outside of Core Coders. We will, from time to time, tell you about Ski Tracks related information.

## **About**

This section of the application provides you with information resources and methods to contact us and leave feedback. The version number is also displayed at the top of the page.

## ***Help***

Useful help regarding Ski Tracks.

## ***Terms & Conditions***

In addition to the Google Play Store Terms & Conditions, we have put together an easy to read set of conditions for using the application.

## ***Credits***

Who helped us during and post development of Ski Tracks.

## ***Legal Notices***

Legal notices for the application.

## ***Leave Feedback***

Allows you to rate & review Ski Tracks on the Google Play Store. If you have a problem however, please give us a chance to rectify the issue before you leave negative feedback.

## ***Report Issue***

Email us your issue - We will get back to you as quickly as possible.

## ***Social Links***

Find us on a variety of social media to stay up to date in regards to the Android version and also Ski Tracks itself.



## History





## Maps

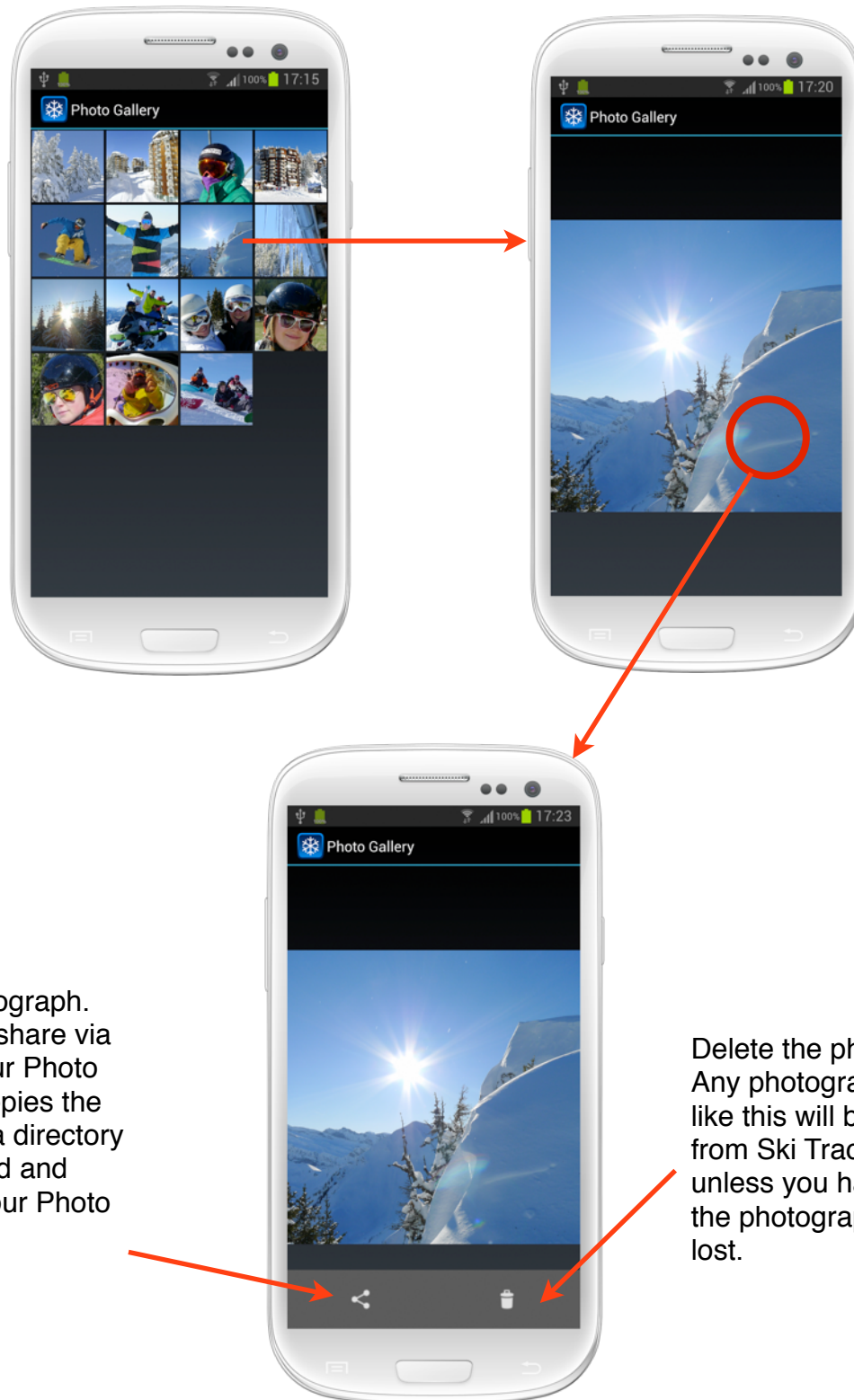
The track's map feature lets you view where you have been on the mountain. Your track is displayed as a red line and helpful information tabs are displayed along the way depending on what you select in the Map Tools.



## Photos

The majority of devices have some sort of camera hardware installed. The quality of this hardware varies between device but the majority are to a pretty good standard.

If you take photographs they will be added to your track. If you have a location whilst taking these photographs they can be displayed on the map in the correct location.



Share the photograph. You can either share via email or via your Photo Gallery. This copies the photograph to a directory that can be read and displayed by your Photo Gallery.

Delete the photograph. Any photograph deleted like this will be removed from Ski Tracks and unless you have shared the photograph, it will be lost.

## Import SKIZ

Ski Tracks can import native .skiz files into the application. There are a number of ways this can be done on Android and it can vary between device. We have tried to make it as easy as possible to import your SKIZ files.

1. Email a friend a SKIZ file using the export option and they can open the .SKIZ file and it will get imported automatically.
2. Mount your device onto your computer via USB to gain access to its storage. Once there you can place multiple files into the directory located at *Ski Tracks/Tracks/Import-SKIZ*.

### Importing Via Email/Gmail

Importing a SKIZ from an email on email applications can vary in its effectiveness. Here is a step by step method for importing from Gmail.

1. Open the email in Gmail.
2. Select either view/save. (If you press save you then need to press view)
3. When you press view you either get the option to open with Ski Tracks or it automatically begins to import it.
4. Once imported, if you open Ski Tracks and go to the History section you will be able to see your track.

### Some Issues

- On some devices you do not get the option to view or open with Ski Tracks. If this is the case, save the file to your phone and then locate the file using another application or by browsing your storage via Settings. (*When you save the file they're usually stored in the Downloads folder*).
- If you do not get any options to Open/Save the file then either use a different email application on your device or jump to the next section on *importing via computer*.

### Importing Via Computer

If you can access your phone's external storage and mount it onto your computer then this is the easiest way to import .SKIZ files onto your device. It is also the only way to import multiple .SKIZ files at a time.

1. Connect your device to your computer via USB.
2. Depending on your device and software version, you access the device differently. Here are a few examples.
  - a. On a Samsung Galaxy S3 you use the Android File Transfer software to access the storage.
  - b. On a Samsung Galaxy Ace, swipe from the top and tap the notification saying you're connected via USB. You then proceed to Mount the Drive.
  - c. On a Sony Ericsson Xperia U, you are prompted to install some software that allows you to do this.
3. Once your device is mounted and you have access to the device navigate to the directory *Ski Tracks/Tracks/Import-SKIZ*.
4. From there copy and paste any SKIZ files you want to import into this directory.



5. Depending on the device, you have to either remove the device from the computer or you can leave it attached. Eg. a Samsung Galaxy S3 can be left attached whereas a Samsung Galaxy Ace can't. (We recommend detaching and unmounting your device from the computer to be safe).
6. Now its simply a case of navigating to the Ski Track's Tracking display and it will automatically start importing those tracks.
7. Once it is complete you can find all your tracks in the history.

# Technical Information

## Location

Location Filter (Good Quality) Accuracy  $\leq 50$  metres.

## Accuracy

Ski Tracks uses sophisticated algorithms for the measurement of distance, speed and slope angle. We are constantly improving our analysis of run data from different mountains and Android devices.

Our current tests show that our accuracy is about:

Speed  $\pm 5\%$

Distance  $\pm 5\%$

Altitude generally  $\pm 10$  meters

Slope Angle  $\pm 4\%$

Obviously different conditions, different devices with different hardware and particularly GPS in general has inherent inaccuracies and although we have strived to improve this using filtering and other techniques, accuracies can vary depending on the quality of locations.

## Troubleshooting

This product has been tested by a number of Beta testers and using a series of test scripts and files to make sure this product is fully working before it reaches the application store. However as with any complex software product there is always a possibility of a bug, omission or an unknown fault that has got through the testing phase of the application. If you see something that maybe a fault please read the following trouble shooting guide first.

Symptom	Cause
Application will not start.	<p>If the application shows a a black screen and then crashes then first of all do the following:</p> <ol style="list-style-type: none"><li>1. Power off/on your device.</li></ol> <p>If this does not fix the problem then you may need to uninstall and then reinstall the application from the Google Play Store. if you purchased the application from the Play Store, you will not be charged again. You can also reinstall it from your computer.</p>
Application crashes whilst I'm using it.	<p>Please try Force Stopping the application and starting again.</p> <p>Also try powering on/off your device.</p> <p>If it continues to happen please send a crash report with your email address in the message content so we can work with you to resolve your issue.</p>

Symptom	Cause
<p>My device does not get a location.</p>	<p>Devices vary in their ability to get a GPS fix.</p> <p>To check if you have a location, on the Tracking display, there should be some Lat and Lon values. If not then a location hasn't been received.</p> <p>Also have a look in the top status bar for a GPS status icon. If it's flashing it means it hasn't got a fix and solid it has.</p> <p>Lastly open the GPS section and look at the time of the last location that came in. If it's a long time ago then the GPS has lost you.</p> <p>If it simply doesn't get a fix after a few minutes you can try the following:</p> <ol style="list-style-type: none"> <li>1. Hold your device so the screen points skywards.</li> <li>2. Make sure you're standing away from buildings, trees and other obstacles that could obstructing the sky.</li> <li>3. Make sure there are no items in your pockets obstructing the GPS such as credit cards, ski passes with RFID, wallets, other phones, iPods, camera or electronic items.</li> <li>4. Power the device off and on (<i>seen this with a few devices</i>).</li> </ol> <p>If this does not work check the following.</p> <ol style="list-style-type: none"> <li>1. GPS locations is on in Settings.</li> <li>2. The device isn't in Airplane mode.</li> <li>3. Check if you're getting a location in Google Maps. If so then Force Stop Ski Tracks and reopen. If it still doesn't work then please let us now.</li> </ol>
<p>My statistics aren't updating?</p>	<p>The most likely cause for this is you haven't got a location yet. Please see the "My device does not get a location" symptom above.</p> <p>Another cause could be that the quality of the locations coming in aren't good enough or our algorithms determine that you haven't received any valid locations to update your statistics. Begin moving around when you have a fix and see if they update then.</p>

Symptom	Cause
My battery doesn't last long?	<p>Battery life can be affected by a number of factors. These include the following:</p> <p>Temperature - Batteries tend to work best around room temperature between 18-25C. Therefore, placing your device in an inside pocket will work best.</p> <p>Turn off unwanted features:</p> <ol style="list-style-type: none"> <li>1. Bluetooth.</li> <li>2. Wifi.</li> <li>3. Push email.</li> <li>4. 3G.</li> </ol> <p>On devices where you can run multiple tasks in the background, check you are not running tasks that are working in the background such as other tracking or GPS software, audio or other applications that may be using battery power.</p> <p>Also if you are unlocking and using the screen often, try turning down the brightness as this greatly affects battery life.</p> <p>Turn Battery Monitoring on in Ski Tracks so that, just incase your battery drops low, you are left with your phone alive.</p>
Other problems	<p>Please report them at <a href="http://www.corecoders.com">http://www.corecoders.com</a> or email our dedicated support email for Ski Tracks at <a href="mailto:skitracks-android@corecoders.com">skitracks-android@corecoders.com</a>. You can also use our in-app "Report Issue" button in the About section to email us.</p>

## Future

We are already working on the next version of Ski Tracks for Android and these updates will be free for those who have already purchased a copy of Ski Tracks. The upcoming updates will be published to bring the Android product inline with the iPhone product in regards to features.

If you have any suggestions then please visit our web site at [www.corecoders.com](http://www.corecoders.com) and contact us.

Thanks you

The Core Coders Team.